

What Is Claimed Is:

1. A thermoplastic resin composition comprising:

(1) 5 to 30 parts by weight of a small diameter graft alkyl acrylate-styrene-acrylonitrile;

5 (2) 10 to 40 parts by weight of a large diameter graft alkyl acrylate-styrene-acrylonitrile;

(3) 10 to 70 parts by weight of an aromatic vinyl compound-vinylcyanide copolymer;

10 (4) 10 to 30 parts by weight of a butadiene-styrene-methylmethacrylate resin; and

(5) 1 to 10 parts by weight of an alkyl acrylate copolymer, based on 100 parts by weight of the sum of (1), (2), (3) and (4).

15 2. The thermoplastic resin composition according to claim 1, wherein the small diameter graft acrylate-styrene-acrylonitrile copolymer comprises:

5 to 50 parts by weight of a small diameter alkyl acrylate rubber latex;

20 10 to 50 parts by weight of an aromatic vinyl compound; and

1 to 20 parts by weight of a vinylcyanide compound.

3. The thermoplastic resin composition according to claim 1,

wherein the large diameter graft acrylate-styrene-acrylonitrile copolymer comprises:

10 to 60 parts by weight of a large diameter alkyl acrylate rubber latex;

5 10 to 40 parts by weight of an aromatic vinyl compound; and

1 to 20 parts by weight of a vinylcyanide compound.

4. The thermoplastic resin composition according to claim 2  
10 or 3, wherein the alkyl acrylate rubber latex is prepared from an alkyl acrylate monomer by emulsion polymerization with an emulsifying agent, an initiator, a grafting agent, a crosslinking agent and an electrolyte as additives.

15 5. The thermoplastic resin composition according to claim 4, wherein the alkyl acrylate monomer is butyl acrylate or ethyl hexylacrylate.

6. The thermoplastic resin composition according to claim 1,  
20 wherein the small diameter graft acrylate-styrene-acrylonitrile copolymer has a particle size of 500 to 2000 Å and the large diameter graft acrylate-styrene-acrylonitrile copolymer has a particle size of 2500 to 5000Å.

7. The thermoplastic resin composition according to claim 1, wherein the aromatic vinyl compound-vinylcyanide compound copolymer comprises:

60 to 75 parts by weight of an aromatic vinyl  
5 compound; and

25 to 40 parts by weight of a vinylcyanide.

8. The thermoplastic resin composition according to claim 1, wherein the butadiene-styrene-methylmethacrylate copolymer  
10 comprises:

8 to 20 parts by weight of a polybutadiene rubber latex;

40 to 70 parts by weight of a methacrylic acid alkyl ester compound or an acrylic acid alkyl ester compound;

15 15 to 30 parts by weight of an aromatic vinyl compound; and

1 to 10 parts by weight of a vinylcyanide compound.

9. The thermoplastic resin composition according to any one  
20 of claims 2, 3, 7 and 8, wherein the aromatic vinyl compound is at least one selected from the group consisting of styrene, alpha-methylstyrene and para-methylstyrene.

10. The thermoplastic resin composition according to any

one of claims 2, 3, 7 or 8, wherein the vinylcyanide compound is acrylonitrile.

11. The thermoplastic resin composition according to claim 5 1, wherein the alkyl acrylate copolymer has a core-shell structure, in which the core comprises acrylate rubber particles, each particle comprising a seed comprising 4.9 to 14.9 parts by weight of C<sub>2</sub>-C<sub>8</sub> alkyl acrylate and 0.1 to 5.0 parts by weight of a crosslinking agent, a first core 10 layer comprising 40 to 90 parts by weight of C<sub>2</sub>-C<sub>8</sub> alkyl acrylate and 0.1 to 5.0 parts by weight of a crosslinking agent, and a second core layer comprising 40 to 90 parts by weight of C<sub>2</sub>-C<sub>8</sub> alkyl acrylate; and the shell comprises 5 to 30 parts by weight of C<sub>1</sub>-C<sub>4</sub> alkyl methacrylate.

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12. The thermoplastic resin composition according to claim 11, wherein the alkyl acrylate is at least one selected from the group consisting of methyl acrylate, ethyl acrylate, propyl acrylate, isopropyl acrylate, butyl 20 acrylate, hexyl acrylate, octyl acrylate and 2-ethylhexyl acrylate.